SANDY'S WORD PROCESSOR

WORD PROCESSOR: 1.8.2 LK

MAILER: 1.3

SERIAL NUMBER: 2045

DATE: 8/11/80

S A N D Y ' S T E X T E D I T O R

A N D W O R D P R O C E S S O R

DISTRIBUTED BY COMPUTERLAND AUSTRALIA

02-293753

Minimum hardware configuration is 48K Apple with disk drive and printer.

The K versions require a keyboard modification, the S versions require a spinterm printer, and the L versions require the lower case chip.

When an upgrade is issued this manual and the original disks must be returned

S A N D Y ' S T E X T E D I T O R

A N D W O R D P R O C E S S O R

DISTRIBUTED BY COMPUTERLAND AUSTRALIA

02-293753

This word processor is based on uncompromising adherence to three principles:

- That you should always be able to see exactly what you are doing (true windowing, as against partial windowing on most word processors).
- That you should be able to insert or delete in the middle of a paragraph without having to rearrange the rest of the paragraph (full insert/delete).
- That you should be able, if you desire, to handle extremely large files (disk backup).

This word processor is screen/cursor based. The screen provides a direct one to one window into the file. The screen may be scrolled up or down the file, with the cursor always remaining halfway up and half way down the screen. Text may be inserted or deleted at the cursor at any point in the text.

In this word processor the screen is a true window to the file, showing the user directly where the cursor is located in the file. When you insert or delete text in the middle of a paragraph all following print lines are automatically rearranged. You do not have to manually rearrange each line in the paragraph.

If you wish to print a file you specify the line length at print time

If desired the text may be backed up onto disk making it possible to edit very long files. Also, a large number of small files may be linked for the purpose of printing a large body of text. (See embedded print options.) With two disk drives documents of 100 pages can be printed using linked files.

It has n key rollover and buffering on typing and two key buffering on commands.

For the benefit of programmers who wish to edit programs as text, a method for so doing is described in the patch report.

This word processor is very easy to use. It is intended that a reasonably intelligent person with no special training in computers (such as a secretary) should be able to start using it after glancing through the manual, performing the sample session described in this manual (there is a sample letter on this disk), and playing with the word processor for a several hours with the manual beside her, though at first such a person would make mistakes and be unable to use most of the advanced features.

GETTING STARTED

To get started with your Word Processor;

Make sure that the APPLE][is correctly connected.

Switch on the TV or monitor.

Switch on power to the computer (The switch is on the rear on the left-hand side). You will hear a short "beep", the power light on the keyboard will light up, the in use light on the disc drive will light up and you will see on the screen:

APPLE][

Insert the Word Processor disc into the disc drive with the label up and toward you. Close the flap. Within a few seconds you will see on the screen;

S A N D Y ' S T E X T E D I T O R

W O R D P R O C E S S O R

VERSION etc.

COPYRIGHT etc.

HIT CTRL Z FOR COMMAND SUMMARY

SLOT AND DRIVE OF SCRATCH DISC? S
(IF ONLY FILES OF MODERATE SIZE ARE
USED, SPECIFY ZERO - NO BACKUP DISC

Press 0 to because you are not going to be using large files at this stage.

If you were to press Ctrl Z , as suggested on the screen, you would see a lengthy display of edit commands and other information appear on the screen. If you press Ctrl Z while in edit mode you will only get a list of edit commands. The same information is available

in more detail on a card the comes with the bcoklet and in greater detail still in the booklet.

You will now see on the screen:

```
FILE COMMAND?
LOAD, SAVE, PRINT, CATALOG OR ANY
DOS COMMAND.
```

This gives you the opportunity to select one of a number of functions. Only the initial letters are needed:

L for LOAD- causes a file to be copied into the APPLE][for use.

S for SAVE- causes the text in the APPLE][below the flashing cursor to copied on to a disk file for storage.

P for PRINT- causes the text in the APPLE][below the flashing cursor to be printed on the printer.

C for CATALOG- causes a display of files stored on the disk.

RETURN causes the word Processor to enter the Editor mode which enables you to type in new material (text) for printing or saving.

Hit return. You will see two white bars on the screen, representing top and bottom of text. Midway between the two bars is your flashing cursor. Right now there is no text, so type in some. If you have not had the keyboard mod then your shift and shift lock keys will not work for alphabetic characters. Use the ESC key for upper and lower case as documented on the card you should have received with your word processor.

Now move your cursor back into the middle of your text by hitting back arrow several times.

Now change some of the text. First delete some of your existing text one character at a time by hitting Ctrl K. (A Ctrl character is a character that you hit while holding the Ctrl key down.)

Type in some more text to replace the text you have deleted.

Now return to the start of file by hitting Ctrl R. Then hit Ctrl F to enter file command mode. You will now see on the screen:

```
FILE COMMAND?
LOAD, SAVE, PRINT, CATALOG OR ANY
DOS COMMAND.
```

Hit p for print, followed by carriage return. The screen will clear and the computer will request information on how the text is to be formatted for printing. (The primary print options.) If your printer is in slot one as it usually is, just ignore all these queries. If it is not in slot one specify the correct slot by moving the cursor down to the slot position with carriage return or right arrow and then typing in the correct slot, followed by carriage return. Hit space bar to indicate that you are happy with the print options, then hit carriage return.

You have now printed out a small piece of text. (If the machine just dropped dead then either you forgot to switch the printer on, or the printer is not in the slot you specified, or it thinks its out of paper, or something like that. Most likely you forgot to switch the printer on.)

At this point you should be back in edit mode (two white bars with some text between them). Delete all the text. (Hit Ctrl D twice). Now enter file command mode again and type c for catalog. A list of files will appear, like so:

```
A     EDITOR
A     MAILER
A     PRGMAILER
B     PATCH
A     P3STOW
A     LABELLER
   A  SAMPLE LETTER
   B  PSAVE
   C  MAIL LIST
   D  DEMO LETTER
   E  PRINTER DEDICATE
   F  PRINTER CAPABILITIES
A TO F TO SELECT, SPACE TO CONTINUE
```

Select the file SAMPLE LETTER by hitting a. (I am assuming that the word processor disk is still in the disk drive last used.) You should now find yourself back in file command mode again, with the prompt;

```
FILE COMMAND?
LOAD, SAVE, PRINT, CATALOG OR ANY
DOS COMMAND
```

Hit l for LOAD then carriage return.

The Screen should say;

```
FILE COMMAND? LOAD SAMPLE LETTER
```

and the disk in use light should come on as the computer does just that.

You should be in edit mode with the cursor at the bottom of the text. Move the cursor to the top of text then print as before. Move the cursor to top of text and then read the letter, comparing it with what was printed.

To move the cursor downwards hit Ctrl V.

Now alter the letter a bit, and print it again.

A paragraph is a text line - a string of characters terminated by a carriage return. It may be as long as you like, and is often several hundred characters long. When you type you ignore the edge of the screen and just type on, as if you were using a typewriter on paper a thousand characters wide. You do not insert additional carriage returns to make the text look neat on the screen.

When the text is printed the program will automatically insert additional carriage returns as necessary to fit the paragraph onto a sheet of paper of finite width. When displayed on the screen paragraphs are simply folded over to fit onto the 40 character screen and the foldover may occur, and generally will occur, in the middle of a word. This is necessary in order that the screen keeps a one to one relationship to the text. However on printing carriage returns will be inserted correctly.

The paragraph you have just read looks OK on the paper, but on the forty column screen it looks like this, with words broken in the middle:
The paragraph you have just read looks O
K on the paper, but on the forty column
screen it looks like this, with words br
oken in the middle

To do things like indenting and so forth you use embedded print commands, as illustrated in the file SAMPLE LETTER

Now that you have an altered version of sample letter you presumably wish to save it. Suppose you wish to call it TEST LETTER. Put an initialised disk (with no write protect tab) in the drive last used, move the cursor to top of text, enter file command mode and type "s test letter". The screen should display:" SAVE TEST LETTER" and, when you hit carriage return, the disk in use light will come on indicating the file is being saved under that name.

(The write protect tab is the little piece of plastic that covers the slot in the disk. It protects the disk from being written to. Your word processor disk should have one. A new blank disk should not. New blank disks must be initialised after they have been bought. To initialise a disk exit the word processor by hitting Ctrl C several times, type FP to clear all programs out of memory, place the blank

uninitialised disk in the last used disk drive and type INIT HELLO. The disk will be initialised. This will take about two minutes. If there is any data on the disk that data will be destroyed.)

Delete your text by typing Ctrl D twice. Enter file command mode then hit L followed by return. The file last specified, which in this case should be TEST LETTER, should be loaded.

Now remove the disks, switch off the machine, and read the manual.

DETAILED LIST OF COMMANDS

There are only four modes, unlike some word processors in which every time you do an insert you have to switch to insert mode and every time you do a delete you switch to delete mode and so forth. On this word processor all normal editing is done in edit mode. There are three other modes: file command mode indicated by the screen clearing and the prompt "FILE COMMAND ?", exchange mode indicated by a white square preceding the cursor, and test print mode, in which the text is displayed as it will be formatted for the printer, rather than as formatted for editing.

There are two types of command:

Edit commands. These are single key commands and they have an immediate and visible effect on the text displayed on the screen, so that you can always see exactly what your doing. These commands only work while in edit mode. Attempting to use them while in file command mode will result in errors and confusing results.

File commands. These enable you to load a file to your text, save a file, print your text and so forth.

There are three types of print option:

Primary print options. These tell the computer how the text is to be formatted for printing - indent, left and right margins, and so forth. The first time in a session that you tell the computer to print something it will ask you for the primary print options. It will supply defaults for all of them. If the default that it offers is acceptable to you then just hit carriage return.

Secondary print options. The computer requests these each subsequent time you go to print something. These deal with the number of copies, paper alignment, whether you wish to change the primary print options and so forth

Embedded print options. These are a source of much confusion among first time users. They are keyed into your text, like any other text. However at print time instead of being printed they are executed as commands, in most cases commands to change the primary print options.

Summary of Edit Commands:

Ctrl Z - list edit commands. Use it when you don't know what to do.

Esc - shift and shift lock. Hitting escape causes the following character to be upper case. Hitting escape twice in succesion is shift lock. To escape from shift lock hit escape again.
If your keyboard has been modified shift and shift lock will work in a more or less normal manner, like a normal typewriter.

Forward arrow - moves cursor forward one character.

Back arrow - moves cursor backward one character.

Ctrl N - moves cursor up one paragraph, or, if the paragraph is longer than six screen lines, moves up six screenlines. Mnemonic: on the Apple][keyboard "N" appears to have an upward pointing arrow.

Ctrl V - moves down one paragraph, or six screen lines if the paragraph is too long. Mnemonic: "V" is a downward pointing arrow.

Ctrl K - deletes character preceding cursor, and moves cursor and all text following it backward one character. Mnemonic: "K" is a backward pointing arrow with a crossout mark across it.

You may be in the habit of useing back arrow to correct typos that you spot immediately after doing them. On this word processor you must unlearn this habit and use Ctrl K for such corrections. I repeat: Unlearn this habit!!!

Ctrl A - deletes backwards from the current cursor position. Deletes one paragraph, or six screen lines if the paragraph is too long. Mnemonic: "A" is an upward pointing arrow with a crossout mark across it.

Ctrl T - tab. To set or clear a tab hit Ctrl I. If the tab is cleared a brief warning buzz will sound. If it is set there is no sound. Until altered there is a tab every 10 characters. Tabs are meaningless beyond 150 characters.
See also "Embedded Print Options" for a discussion of indenting.

Ctrl J - tab with right justification. The cursor moves in the same way as it does for tab, but any word it is touching and the entire line to the left will be pulled along with the cursor.

Ctrl T moves the cursor only. Ctrl J moves the text as well. To left justify tab to the desired point and start typing as with an ordinary

typewriter. To tab with right justification type the word then hit Ctrl J. The cursor will go to the next tab, pulling the word with it. To justify the decimal point hit Ctrl J after typing the decimal point, and the point will be pulled along. Ctrl J is also useful for moving columns around once they have been set up.

Moving text is just like moving groups of childrens building blocks.

There are three kinds of lines: paragraphs which are what the word processor manipulates and edits, screen lines which are the means by which the word procgssor displays paragraphs while you edit them, and print lines which the word processor generates at print time.

The tab is not a screen line tab.
It is not a print line tab.
It is a paragraph tab.
It tabs you some fixed number of characters from the start of the paragraph, not from the start of screenline, as you will quickly discover once you reset a few tabs.
If you are using the tab to lay out a table you must remember two things:
1. A print line, unlike a paragraph, has some fixed and finite limit to its width (you can forget this when you are merely typing text since the word processor will simply generate as many print lines as it needs to fit the paragraph, but you dont want it to generate additional print lines in the middle of a table).
2. The length of a print line differs from thm length of a screen line, thus neatness on the screen does not necessarily lead to neatness on paper when you are drawing up a table.

The following edit commands are less commonly used:

Ctrl C - exit word processor.

It is sometimes possible to restart the word processor without loss of data from basic by the command "GOTO 55", or from monitor by "9DBFG" to re-enter basic, followed by "GOTO 55".

Ctrl C - interrupt task. If Ctrl C is used while the word processor is doing something the word processor drops what it is doing and returns to edit mode. Useful when the printer jams, or you specify a mass replace and realise with horror that your search string is too general.

It is risky to use this interrupt during disk backup

RESET - on the auto boot apple this will interrupt the task and return you to edit mode.

Ctrl D - hitting Ctrl D twice in succession deletes all text.

Ctrl R reset to start of file.

Ctrl S - search for a string. Ctrl S abcd Ctrl S finds the string abcd. If no string is specified (Ctrl S Ctrl S)then the word procmssor searches for the next occurence of the string last specified.

For example SdogS will search for the string "dog" - for example the "dog" in "dogged". If you require a trailing blank - for example Sdog S then "dogged" will be ignored but "dog" wont be. Note that the search string may contain carriage returns.

Ctrl X - exchange. Ctrl X abcd Ctrl X replaces all occurences of the string last specified in a search command with the string specified in the exchange command. At each occurence the search stops and a cursor flashes, asking for a command. Valid commands are: "Y" -yes,replace the string. "N" - no, do not replace, goto next occurence. "T" - terminate cease exchanging and return to edit mode. "Ctrl Y" replace every case from here on without pausing for further instructions.

Ctrl B - skip to bottom of text.

Ctrl D - delete forward.

Ctrl W - recovers the characters gobbled up by previous Ctrl K's and Ctrl A's. This cannot be used to move text about. For that use the load and save commands or Ctrl G. This command is solely for the purpose of recovering from careless Ctrl A's. If used for any other purpose it will generate garbage, or copy existing text.
To recover from unwanted Ctrl A's simply type as many Ctrl W's as are required. To recover from unwanted Ctrl K's hit Ctrl W then delete the excess.

Ctrl ^ -does a test print to the screen. Test print halts every few lines or when you hit S, and at end of page, returns to edit mode if you hit R, continues if you hit any other key.
To skim through a test print quickly use carriage return repeat. To return to edit mode hit R [illegible]

Ctrl Y - fast auto repeat. Typical use would be Ctrl Y Backarrow. To terminate hit carriage return.

Ctrl G - grab. Used to move small units of text (6 screenlines or less) within the main body of the text. To move large chunks of text use the file commands. The first Ctrl G inserts a visible marker into text. You then move the cursor down in the text and hit Ctrl G a second time. The text is grabbed - it abruptly disappears. A third Ctrl G causes the text to be inserted at current cursor position. Three Ctrl Gs in succession without moving the cursor cause the text segment last grabbed to be inserted once again, irrespective of how

many times it has already been inserted.

Errors in the use of Ctrl G, S and X will result in unwanted marker characters in your text. These characters are just characters like any other and may be deleted like any other character

Ctrl E - embed the following control character in text. Note that Esc, backward arrow and forward arrow are control characters. The control characters are displayed on the screen as inverse characters, as befits their importance. (Flashing if you dont have a lower case chip.) They are normally not printed, though they can drastically affect the action of the printer, the effect depending on the type of printer. On some printers Ctrl N and Ctrl O correspond to start and stop underline. Ctrl I is the escape character for a variety of printer dependent commands. Control characters are also useful in EXEC files.

Ctrl F - enter file command mode.

Ctrl L - set lower limit.

Special Characters

Ctrl C - with shift locked - [, otherwise {.
Ctrl P - with shift locked - \, otherwise |.
Ctrl Q - with shift locked - _, otherwise See the file printer capabilities.
Shift M gives the right hand bracket for Ctrl O with shift locked

Use of the Word Processor with Keyboard Mod

There are several different versions of the word processor for different hardware configurations.

The K version series requires a lower case chip and a keyboard modification. (K for keyboard. The keyboard modification is described at the end of this manual.) Without the lower case chip lower case characters will be displayed on the screen as garbage (numbers and punctuation marks). Without the keyboard modification it will work exactly like the standard version provided there is nothing plugged into the games IO (no paddles). In other words it is perfectly usable without the keyboard

modification.

When the keyboard modification is made however your shift key works normally (similiarly to a normal typewriter shift - shift and clear lock) and your control key functions as a shift lock key. The machine gives a tick when you lock or clear the lock. You may type control characters (characters typed with the control key held down) and shift characters (characters typed with the shift key held down) without interfering with the lock/shift state.

Lock only affects alphabetic characters. it does not affect numeric characters. You do not have to clear lock to type numbers and a right bracket is still a shift nine even if lock is in effect.

Special characters are available by hitting the appropriate key with the control key held down.

CONTROL CHARACTER	4	5	6	7	8	9	:	;	<	=	>
SPECIAL CHARACTER	|	\	~	`	{	}	^		[	_	]

Control "2" enters an inverse blank (see embedded print options). Control "3" enters an inverse hash (for the mass mailer). Control ";" enters a rubout character that displays on the screen as a small square.

File Commands

"LOAD <filename>" - inserts the file named to text at the present cursor position.
"LOAD <filename>,<filename>,... ,<filename>. inserts several files in order named to text.
"LOAD " - inserts the last mentioned file to text.

"SAVE <filename>" - copies text to file named. all text between the cursor and lower limit is copied.
"SAVE " - copies text to file last mentioned.

"OPTIONS <filename>"- alters the options specified for that file. This enables you to specify random access, or to alter the slot and drive associated with that file.
"OPTIONS" - alters the options for the file last mentioned

"PRINT" - sends text to printer.

"OPTIONS PRINTER" - alters the printer options. (Warning: incorrect printer slot will cause an absolute program crash with no error message and no recovery other than reset or reboot.)

"CATALOG" - displays menu of text files on the current default slot and drive. The file selected becomes the default for subsequent load

and save commands.
"CATALOG,D1" - displays menu of text files on the current default slot using drive 1. "CATALOG,S6" and "CATALOG S6,D2" are analogous

- carriage return (the null file command) returns you to edit mode without anything happening.

Any DOS command may be used. Usefull DOS commands are

"DELETE <filename>" - deletes the file

"VERIFY <filename>" - tests for disk corruption.

"RENAME <filename>,<filename>" - changes the filename.

To enter file command mode from edit command mode you hit Ctrl F. The program will then request a file command.

Note that when you are in file command mode your normal edit keys do not work, apart from back arrow and forward arrow. Thus if you make a mistake and attempt to correct it with a Ctrl K you will end up specifying a file name with (invisible) Ctrl K's embedded in it. If you realise in time that you have done this unintentionally then hit Ctrl X instead of carriage return and type in the filename again. If you suspect youre disk has some bodgy files on it with control characters in their names and you wish to delete or rename them, then exit the editor, type "BRUN PATCH" with the word processor disk in the appropriate drive. Then type CATALOG with the disk carrying the suspect files in th appropriate drive. Control characters will be displayed as inverse. Rename any such files. If you attempt to load a file and the computer responds file not found it is probably a file with control characters in the name.

If no file name is specified then "LOAD", "SAVE", and "OPTIONS" work on the file last specified. DOS commands obey the normal DOS conventions, unlike word processor commands. if you issue a word processor command with a DOS convention, for example LOAD P1,D2, the word processor will load P1 and attempt to load D2, instead of loading P1 off drive 2. Similiarly if you issue a DOS command with word processor conventions,for example DELETE, meaning delete the file last mentioned, the DOS will reject it.

When you first mention a file the word processor will associate a particular slot and drive with that file - the default slot and drive - i.e. the one last used. If the slot or drive last used is not the one you want select the file using the CATALOG command or the OPTIONS command.

Suppose that you say LOAD SAMPLE LETTER and the computer replies EMPTY FILE SAMPLE LETTER because it was looking at the wrong drive. You could

move the disk and try again, or you could change the slot and drive associated with the file. For example if the file is in drive two and the computer thinks it is in drive one then we could have the following conversation:

```
You:      Ctrl F
Computer: FILE COMMAND?
You:      LOAD SAMPLE LETTER
Computer: EMPTY FILE SAMPLE LETTER
You:      OPTIONS
Computer: OPTIONSAMPLE LETTER
          SLOT AND DRIVE ? S
You:      6
Computer: SLOT AND DRIVE ? S6,D
You:      2
Computer: SLOT AND DRIVE ? S6,D2
          SEQUENTIAL OR RANDOM ACCESS FILE (S/R)?
You:      S
Computer: FILE COMMAND?
You:      LOAD
```

Alternatively

```
You:      Ctrl F
Computer: FILE COMMAND?
You:      LOAD SAMPLE LETTER
Computer: EMPTY FILE SAMPLE LETTER
You:      CATALOG,D2
Computer:    A FIRST LETTER
             B SECOND LETTER
             C SAMPLE LETTER
             D ANOTHER LETTER
You:      C
Computer: FILE COMMAND?
You:      LOAD
Computer: FILE COMMAND? LOAD SAMPLE LETTER
```

And all is well.

Ctrl L sets the lower limit to current cursor position if the lower limit is currently at end of text (as it normally is). If the lower limit is not at end of text it clears it to end of text and sounds a warning bell. One seldom uses this command except when transferring a segment of text from one part of the text to another. Lower limit is cleared to end of text after saving a file.

To permanently change the default print options: Select the print options using the file command OPTIONS PRINTER then remove the write protect tab of your word processor disk, place the disk in the current default drive, then issue the file command EXEC PRINTER DEDICATE. Replace the write

protect tab with a new one as soon as the disk drive stops humming

Useful DOS commands are "DELETE <filename>, VERIFY <filename>, EXEC <filename>, and "RENAME <filename>,<filename>". When one execs a text file with shift lock in effect everything behaves as expected. With lower case in effect capital letter become lower case and lower case letters become capitals. This is sometimes useful for converting text files prepared under upper case only text editors.

WARNING: DOS BUG
DOS 3.2.1 and earlier DOSes do not always handle the disk full error on text files correctly.

Sometimes when one gets a disk full error some of the space on the disk is incorrectly marked as used. As a result some disk space is permanently lost. The disk in effect gets smaller. Other unpleasant things can happen, but this is the most common.

This bug affects all programs that generate text files through the DOS, not just the word processor

To detect this make a copy of the suspect disk, delete all files, and see how much free space you have using the disk map program (Lawrence Hall on Science. Normal value for an empty disk is 403 sectors.)

Once this has happened to the disk there is no cure other than to copy all the files to a new disk and reinitialise the old disk. It is to be hoped that later DOS releases are free of this bug.

Print Options

When you issue the file command PRINT the computer will request various options.
The first time you issue a print command win a session it will request the primary print options. On subsequent PRINT commands it will request the secondary print options.

Primary Print Options

Most of these are self explanatory, but...

Indent refers to the indent of the first line of a every paragraph. (Negative indents are permissable.) To indent an entire paragraph or group of paragraphs relative to the rest of the text use the embedded print option RLM.

Page Width includes the left margin but excludes the right margin. Thus you use page width to set the right margin. The reason for this slightly strange convention should become obvious when you come to use RLM.

Fold Width is the width of the combined margins at the top and bottom of a sheet of paper. Thus if you are using paper with the standard page length of 66 line and you employ a fold width of 7 then you will have 59 usable lines on a page.

Normally page numbers start at one. This means that the first page will not be numbered, the second page will be number two, the third three and so forth. If you specify a start of zero then pages will not be numbered.

Please specify the right slot. If the printer is in slot five and you specify slot one the computer will attempt to output to slot one and will simply stop dead without an error message or a way of getting it back to edit mode.

Secondary Print Options

These are largely self explanatory. They are:

1 PRINTER MANUALLY POSITIONED TO START OF NEXT PAGE (The printer is already aligned to start of next page.)
2 SKIP TO NEXT PAGE (This causes a page eject.)
3 CONTINUE PRINTING WHERE LEFT OFF
4 OPTIONS (Enables you to change the primary print options. Manually align the paper when you use this option.)
5 RETURN TO EDIT MODE
6 MULTIPLE COPIES (Manually align the paper before requesting this option.)

Embedded Print Options

To embed any control character hit E^C followed by the character while holding control down.

When text containing a Ctrl S is printed the machine stops at the Ctrl S until you hit the space bar.

This enables you to change print heads etc. Another convenience of this feature is aligning text on letter head paper. Commonly the file starts of with a lot of carriage returns to skip over the letter head. You place a Ctrl S before the first non blank character. The printer will halt at that point, permitting you to align the paper exactly.

Ctrl ^ will display as a hyphen. It indicates that a word may be hyphenated at that point if it runs to the next line. The hyphen is not printed unless this occurs.

Ctrl @ will display as an inverse blank. It will print as a blank but it is not liable to be blank padded for the purposes of right justification.

Any line begining with a full stop will be interpreted as an embedded print option. This type of embedded print option must be in capital letters and must be on a separate line. That is to say it must begin and end with a carriage return.

The following embedded print options are available.

.EJECT
-causes page eject

.EJECT ON < <number>
-causes page eject if there are less than <number> print lines remaining on the current page. This is used to avoid page breaks at inconvenient points.

For example
.EJECT ON <10 would cause a page eject if there were less than 10 print lines remaining on a page, and not otherwise.

.INDENT <number>
-resets indent. Negative indents are permissable provided that they do not go beyond the page margin.
Some people find it more convenient to set the print time indent to zero

(except when they want negative indents) and supply their own indent at edit time using the tab.

.NOINDENT
- the following line (only) is not indented.

.PAGE WIDTH <number>
-resets nominal page width.

.RLM <number>
(Relative Left Margin)
-resets left margin relative to the value set in file command mode. Negative values are permissable provided you do not attempt to set the left margin itself to physically impossible position.

.LEFT MARGIN <number>
-resets left margin
.RLM 0 will return left margin to the value originally set

.CENTER
-causes the following text line (only) to be centered - useful for titles.
Example:
.CENTER
TITLE
results in

TITLE

.CONTINUE <filename>
-causes the existing text to be deleted and the new file to be loaded. Printing continues from the start of the new file. This enables you to link together a large number of small files to print a large document.

.L -ends left and right justification. You then have left justification only. Useful for tables and other matters where you wish to take control of the precise position of characters on the paper.

.R -reintroduces left and right justification

See the file SAMPLE LETTER for examples of embedded print options. Note that the embedded print options override the options selected at print time. If you wish to modify your left margin etc within your text it is a good idea to set them using embedded print options at the top of text so that when you change it you know what you are changing it from and what you should change it back to.

Mispellings and impossible values - e.g. left margin negative or greater than page width will terminate printing with the error message "ILLEGAL PRINT COMMAND". (As will the very common line ".....")

For most purposes you will find that it is quite satisfactory to let the word processor decide where to put the page breaks. However if you need to control the location of page breaks use the commands EJECT and EJECT ON <, using the edit command Ctrl ^to see where the page breaks fall.

Handling Very Large Files

Files of up to 20,000 characters will fit in the Apple memory. If they get larger than this the computer must use the scratch disk. (if you have allocated it one.) If it is using a scratch disk you must leave that disk in the disk drive all the time.

Using scratch storage the computer can handle files of up to 70000 characters or larger, but if you are frequently going from the top to the bottom of text and back again this becomes painfully slow.

Alternatively you can link files using the CONTINUE command as described under embedded print options. Using linked files on two disks you can print a document of 200,000 characters in a single print.

TEXT FILES

To test the capabilities of your printer load the file printer capabilities from the word processor disk and print it, in the manner described above.

The word processor disk also contains the files:

SAMPLE LETTER: To illustrate some embedded print options, and how to prepare a letter using the word processor

TAB EXERCISE: Teaches you how to layout tables etc.

PRINTER CAPABILITIES: Features available on some printers (spinterm for example) but not others.

NEW FEATURES: List of new features.

BEGGING LETTER: To illustrate how to prepare many almost identical copies of the same letter.

MAIL LIST: the mailing list used in the above exercise - see the next section of this manual

H O W T O U S E

T H E M A S S M A I L E R

This assumes you already know how to use the word processor.

You wish to send the identical letter out to several hundred names and addresses. Each letter is to have a different name and address, and perhaps refer to different sums of money, and different dates, and so forth, but they are otherwise identical.

You have a disk file containing these names and addresses. A disk file comprises a number of records, each record containing several fields. Typically one field is the name, one field is the first address line, and the next field is the second address line and so forth.

You prepare a letter, using the word processor, in which hash1 stands for the first field, hash2 for the second field, and so forth. (By hash I mean the character obtained by hitting Ctrl E Ctrl Shift M.) If this special character is printed (as can happen if you specifie hash6 and the file only has five fields per record) it may have a startling effect on the printer, depending on the type of printer.

When you prepare the letter you must specify zero for the data disk slot (no data disk).

You then enter file command mode, place the word processor disk (assuming that the mailer is on it) in one of the disk drives and type RUN MAILER. This is a regular DOS command, not a special editor command, and you may specify slot and drive according to the usual DOS conventions. However the disk containing the mailing list must be in drive one when the mailer requests it.

The mailer will request the mailing list filename. It will then ask whether you want the entire mailing list or wish to select on certain fields. After you have specified the selection criteria it will then request the primary print options. It then proceeds to print as many letters as you have mailing list records that fit the criteria.

Warning. You get no second chance to respecify print options. To get them right first do a few trial prints while you are in the word processor, before you enter the mailer.

When using the mailer the mailing list must always be in drive 1 irrespective of the drive that the mailer program came from.

It is possible to interrupt the mailer by hitting C (not control C, just C. Before it stops the mailer will finish the letter it is doing. You may then restart the mailer by typing run. It starts again at the beginning, as it was when you typed RUN MAILER.

To illustrate the use of the mailer we have on this disk a letter from an imaginary charity called BEGGING LETTER and a mailing list called MAIL LIST.

Mailer will request certain data and then produce one copy of the letter for each record that satisfies your specifications. The printer must be on and the paper correctly aligned. If the printer is not on, the mailer, like the word processor will either hang till it is switched on or crash without an error message, depending on the type of printer and type of interface.

LABELLER. This program operates similiarly to the MAILER, but produces labels from a mailing list, not letters. Since no master letter is required you do not need to run it from the word processor. You just type RUN LABELLER.
If you are already familiar with the MAILER you should be able to use the LABELLER after a few tries. For your first couple of tries stick to regular paper. Dont try labels until you can do it right.

TO GENERATE A MAILING LIST

A mailing list is a sequential file with the following format:

```
<number of fields>
<prompt for first field>
<prompt for second field>
.........
......
<prompt for last field>

<first field of first record>
<second field of first record
..........
..........
<last field of first record>

<first field of second record>
<second field of second record>

..........
<last field of second record>

<first field of third record>
<second field of third record>

..........
<last field of third record>




......
<last field of last record>
```

EXAMPLE OF MAILING LIST

```
4
NAME
ADDRESS 1ST LINE
ADDRESS 2ND LINE
DEBT

Harry Harper
5 Gower St.
Summerhill Vict. 2030
37.34

Fred Bloggs
23 Any St
Hurstville NSW 2435
284.23

Joe Smith
43 Station St.
Nth Sydney NSW 2366
367.34

Bill Brown
23 Graham St.
Colling Wood Vict. 2345
123.45

Tam
33 Jehosophat St.
Bundoora
Vic 3823
23.98
```

Note that the last line of a mailing list must be the last field. If there is an empty line at the end the mailer will think it marks the start of a new group of fields, will attempt to read them, and will issue an out of data message.

Using the word processor inspect the sample mailing list on the word processor disk called MAIL LIST, before you attempt to construct a mailing list of your own.

Note that each record of the mailing list must have the number of lines specified in the first record of the file (4 in the example) and that the records must be separated by an empty line. (No blanks, just carriage returns.)

GETTING STARTED ON THE MAILER

Enter file command mode and load BEGGING LETTER. Then re-enter file command mode and type RUN MAILER with the word processor disk in the drive last used. When the mailer asks for the name of the mailing list reply MAIL LIST (a file on the word processor disk).

The computer will then do the mailing list.

Boot up the word processor and take a look at BEGGING LETTER it should be pretty obvious how to prepare a letter for the mass mailer. As described earlier hash1 will be replaced by the first field of the mailing list, hash2 by the second field, and so forth. Commonly the first field is the name, the second field is the street, and so forth.

You want to know how to prepare a mailing list

Delete the text and load MAIL LIST. Add a new record, imitating the format of the existing records. Make sure your record has the same number of lines as existing records. Save the new mailing list to a disk that is not write protected. Load BEGGING LETTER from the word processor disk, enter file command mode, and type "RUN MAILER". Place the disk carrying your altered mailing list in drive 1, and proceed as before.

OK you can now add or delete records. You now want to be able to define a record. Once again load MAIL LIST into the word processor. At the top of text you will see a record descriptor that looks like this:

```
7
NAME
STREET
SUBURB
STATE
POSTCODE
DONATION
DATE
```

Change the 7 to a 6, delete the words DONATION and DATE, and add the word DEBT. There are now six fields expected in each record. Go through the mailing list and delete the date field from each record.

When you return to top of text the mailing list should look like this:

```
6
NAME
STREET
SUBURB
STATE
POSTCODE
DEBT

Harry Harper
5 Gower St.
Summerhill
Vict.
2030
37.34

Fred Bloggs
23 Any St
Hurstville
NSW
2435
284.23

etc.
```

Save this to your disk. Load up BEGGING LETTER, delete hash7 from it, and change the reference to hash6 to refer to a debt, not a donation. Then run the mailer once again.

You now know how to define your own records.

HOW TO LINK THE MASS MAILER TO RANDOM ACCESS FILES GENERATED AND USED BY OTHER PROGRAMS

(For programmers only)

We have a second mass mailer called PRGMAILER. It is used in the same way as the regular mailer but uses a random access fixed record length mailing list. There is a sample mailing list called PRGMAILING LIST record length 128 on this disk.

In order for the Mailer to access a file the file must have a FDR that describes it, on the same disk as the file. If for example the file was called CLIENT, record length 128, the FDR would be in a sequential file called CLIENT FDR. The contents of the FDR are:

```
<record length>,<first available record>,<number of fields>
<field prompt>,<field length>
<field prompt>,<field length>
.............

.....
<field prompt>,<field length>
```

For example:

```
128,0,7
NAME,25
STREET,34
SUBURB,18
STATE,6
POSTCODE,5
DEBT,8
DATE,9
```

If there is no FDR then the mailer will crash immediately after you have given it the file name, issuing the error message "FILE NOT FOUND".

All fields must be blank filled to the full width of the field. Commas, colons, and carriage returns are permitted inside a field. Leading and trailing blanks will be stripped.
If any field is not filled to the full width of the field the mailer will halt and issue the error message OUT OF DATA.

U S E O F P A T C H

This report is relevant only to programmers fairly familiar with the Apple][.

TO EDIT A PROGRAM USING THE WORD PROCESSOR

Firs one must convert the program to a test file, then one edits the text file in the usual way, then you clear memory using FP, then EXEC the text file containg the program.

Load the program and exec a text file, usually called PSAVE, which writes the program to another text file, usually called FSAVE. You then edit the text file as desired. You the save the modified version back to disk, get out of the Word Processor with a Ctrl C, type FP to clear memory (or INT if is an integer basic program), then you exec the text file by typing EXEC FSAVE.

A typical PSAVE for floating point basic is:

```
NOMON O
CLOSE
DELETE FSAVE
63999 D$=CHR$(4):?D$;"OPEN FSAVE":?D$;"WRITE FSAVE":LIST,63998:?D$;"CLOSE"
RUN 63999
```

The word processor disk has a usful PSAVE on it.

Using PSAVE is fine when one is making major changes to a program, but if one only wants to change a single line it's a lot of hassle.

USE OF THE MACHINE LANGUAGE PATCH ROUTINE

In addition to the sophisticated and powerful word processor on this disk there is also a very crude and simple screen line oriented text editor called PATCH.

If you type BRUN PATCH the normal Apple][editing controls, escape A, escape B, and so forth are supplemented by four new editing keys Ctrl N, Ctrl S, Ctrl E, Ctrl W, for north south, east and west.

Ctrl N and Ctrl S act like Esc D and Esc C, except that you can move a hell of a lot faster because the Ctrl key is held down all the time and not repeatedly hit, and one can use the repeat key

Ctrl E is like Esc A, except that it is faster and it marks the characters as uncopied by turning them into inverse

Ctrl W enables one to insert in the middle of a program line

When one lists a program line control characters will appear as inverse, making them copyable. (Except for Ctrl G)

A listing can be halted in mid-flow by hitting Ctrl S and restarted by hitting any key (as can the output from any program.

Before editing long lines full of text in quotes it is often a good idea to type:

```
HOME
POKE33,33
```

This changes the display so that it becomes less neat but much easier to edit Machines using the auto put the boot in ROM already have all of these editing features except for Ctrl W

The patch editor is disconnected by PR£0 or IN£0. & E reconnects it. PR£0 disconnects the stop feature and the display of control characters. IN£0 disconnects the editing.

The patch routine has a number of other little routines to patch defects in floating point basic and the DOS.

A major incovenience with the Apple][style of interface is that every time one switches to the printer with a PR£1 the printer is reinitialised. If one wishes to swap continuously back and forth between the printer and the screen this can on some printers produce undesirable effects. Also one cannot issue a DOS command without first issuing a carriage return. & PR£ causes a swap between two sets of input output devices with neither device ever knowing it was ever disconnected. The first call will disconnect DOS and connect the screen and key board directly. One may then initialise the printer with a PR£1 and proceed, swapping the printer in and out as required, with neither DOS or the printer being any the wiser. In the same way one may use this routine to swap between any pair of I/O devices. (DOS looks like an I/O device to the computer because, like the patch editor, it places itself between the computer and the I/O devices)

& ONERR calls the onerr patch documented in the floating point basic manual

& INPUT enables one to input text containing leading and trailing blanks, commas, colons and so forth.

If one wishes to input the line keyed in as it was keyed in, then instead of:

```
INPUT"";A$
```

you use:

```
& INPUT : A$=IO$+""
```

Where IO$ was the second simple variable mentioned in your floating point program. This routine accesses it by position, not by name. It is essential to add a null string to the inputted string before any other inputs occur, otherwise it will be automatically replaced by the next string input.

& Ctrl C will put you into monitor without disconnecting DOS, and & Ctrl D will reconnect DOS

& PRINT is equivalent to PRINT USING. With this you can control the way a number is printed using a format.

A format may begin with and S, meaning sign, a $ sign, meaning itself, or and asterix, meaning asterix fill

It may end with DB or CR, meaning print DB or CR if the number is negative, otherwise print two blanks.

The body of the format may contain 9's, which represent any digit, or punctuation marks, or blanks.

If the format does not begin with an S it is desirable that it end with DB or CR, or else no indication will be given when the number is negative

Typical Format	Typical Number	Result
S9999.9999	123.45789	123.4567
	-123.45678	-123.4567
S9999	123.4567	123
S99,999.99	1234.56789	1,234.56
	-1234.56789	-1234.56
S99 9999.99	12345.6789	1 2345.67
	1234567.1234	123 4567.12
	-12.3456	-12.34
*9,999.99	123.45	***123.45
This format is usefull for checks		
$9,999,999.99DB	123456.78	$123,456.78
	1234.56	$1,234.56
	-1234.56	$1,234.56DB
$999.99CR	12.34	$12.34
	-12.34	$12.34CR
99/99/99	310480	31/04/80

The number will be truncated or padded (but not rounded) to be the same length as the format. The decimal place always occurs in the position equivalent to its position in the format.

& PRINT causes the following two lines to be interpeted as a format and its number.

```
SAMPLE PROGRAM
10 A = -1234.56789
20 PRINT "A="; : & PRINT : PRINT "S99,999.9"
30 PRINT A   PRINT " FORMATTED"
```

The output from this program is not:

```
A=

S99,999.9
-1234.56789
 FORMATTED
```

As one might expect.

But instead is:

```
A= -1,234.5 FORMATTED
```

To access BRUN PATCH. This will add these new commands and features to Applesoft floating point basic.

PATCH is stored below DOS. It resets HIMEM and is thus incomptible with MAXFILES 5 or larger. It also uses locations $3F5 to $3F7.

KEYBOARD MODIFICATION DETAILS

The K version series requires a keyboard modification (K for keyboard). Without the lower case chip lower case characters will be displayed on the screen as garbage (numbers and punctuation marks). Without the keyboard modification it will work exactly like the standard version provided there is nothing plugged into the games IO (no paddles).

These modifications should be carried out only by a competent technician. It is quite easy to do extensive damage if your soldering iron leaks current or you cook your silicon chips. A soldering iron suitable for digital circuitry must be used. Check with your service organisation and preferably have them do it.

To implement the shift and shift lock functions the computer must know the setting of the shift and control keys. In order that it cans sense them directly one should connect the shift key to SW1 and the control key to SW2. (SW1 and SW2 are usually connected to your paddle buttons through the games IO connector.)

GAMES IO PIN	ENCODER CARD PIN	OLD APPLE KEYBOARD
3	3	28
2	24	42

On more recent APPLES, with the discrete encoder card these wires may be soldered or wire wrapped to the wire wrap pins that connect the encoder card to the keyboard proper. On older APPLES you will have to take them apart to attach the wires directly to the bottom off the key switches.

It is preferable to attach the wires to the games IO by way of a standard 16 pin DIP header which plugs in to the games IO rather than to attach them directly to the games IO, as attaching them directly is too permanent.

NEWER APPLES
When you take the lid off you can see 25 pins connecting the keyboard to the encoder card underneath the reset and colon keys. If you are facing the front of the Apple][(the same position as when you normally use it) the pins are numbered 1 to 25 from left to right. To solder it take the bottom of the Apple][and attach to the existing solder blobs.

OLDER APPLES
Turn the APPLE upside down on a soft cloth. Unscrew the baseplate and very carefully move it a little way. You will then be able to see the pins for each key. CTRL and SHIFT are numbered 28 and 42. Connect each wire to the right hand pin (the one that isnt common) of the appropriate key.)

Note that the keyboard is connected to the base plate by a ribbon of wires

that has to be disconnected and reconnected. If you reconnect it (or any other chip) the wrong way around you will damage your Apple][. On some Apple][s the writing on the ribbon plug is reversed relative to the writing on the other chips. Check.